

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.-32. (canceled)

33. (currently amended) A process for producing an RFID label having an antenna and an oscillating circuit by using a printing process, comprising:

providing a printable substrate; and

applying at least part of at least one of the antenna and the oscillating circuit to the substrate using ~~sheet-fed~~ a conductive paste or conductive ink to print conducting tracks as the part of at least one of the antenna and the oscillating circuit,
the step of applying using offset printing; and

precoating, prevarnishing, or preprinting the substrate with varnish or a pre-inking medium to reduce absorbent properties of the substrate to prevent or reduce absorption of the conductive paste or conductive ink by the substrate, thereby preventing or reducing a change in the inductance of the at least one of the antenna and the oscillating circuit.

34. (canceled)

35. (currently amended) The process of claim ~~[[34]]~~ 33, wherein the conductive ink is used and the conductive ink is an ink with metal particles.

36. (currently amended) The process of claim ~~[[34]]~~ 33, wherein the conductive paste is used and the conductive paste contains carbon black or carbon fibers.

37. (currently amended) The process of claim ~~[[34]]~~ 33, wherein said step of applying comprises applying the conductive paste or the conductive ink in a sheet-fed offset press with gripper transport.

38. (currently amended) The process of claim ~~[[34]]~~ 33, wherein said step of applying comprises applying the conductive paste or the conductive ink in a rotary web offset press.

39. (previously presented) The process of claim 37, wherein said step of applying includes applying part of at least one of the antenna and the oscillating circuit to a rear surface of the substrate which is formed as a sheet, and flipping over the sheet in a turning device.

40. (previously presented) The process of claim 33, further comprising the step of applying a protective varnish or protective ink to the substrate after part of at least one of the antenna and the oscillating circuit has been printed.

41. (previously presented) The process of claim 40, wherein said step of applying a protective varnish or protective ink comprises transferring the protective varnish or protective ink to the substrate in a sheet-fed offset press.

42. (previously presented) The process of claim 40, wherein said step of applying a protective varnish or protective ink comprises transferring the protective varnish to the substrate in a flexo press with an ink chamber blade and a screen roller.

43. (currently amended) The process of claim 40, wherein said step of applying a protective varnish or protective ink comprises applying the protective varnish to the substrate in a flexo press ~~with twin-roll capacity~~.

44. (currently amended) A process for producing an RFID label having an antenna and an oscillating circuit using a printing process, comprising:

providing a printable substrate; and

applying at least part of at least one of the antenna and the oscillating circuit directly or indirectly to the substrate by using a conductive paste or conductive

ink to print conducting tracks as the part of at least one of the antenna and the oscillating circuit, the step of applying using a letterpress plate; and

precoating, prevarnishing, or preprinting the substrate with varnish or a pre-inking medium to reduce absorbent properties of the substrate to prevent or reduce absorption of the conductive past or conductive ink by the substrate, thereby preventing or reducing a change in the inductance of the at least one of the antenna and the oscillating circuit.

45. (previously presented) The process of claim 44, further comprising clamping the letterpress plate onto a plate cylinder of a sheet-fed press or web-fed press, and transferring ink indirectly by way of a blanket cylinder to the substrate.

46. (previously presented) The process of claim 44, wherein the letterpress plate arranged in a sheet-fed or web-fed press is in direct contact with the substrate.

47. (previously presented) The process of claim 46, wherein the letterpress plate is used in a press which also contains offset printing units.

48. (previously presented) The process of claim 33, wherein the substrate is a fibrous material.

49. (previously presented) The process of claim 33, wherein the substrate is a film.

50. (previously presented) The process of claim 33, wherein the substrate is a fabric of at least one of natural and synthetic fibers.

51. (canceled)

52. (currently amended) The process of claim ~~[[51]]~~ 33, wherein the precoating, prevarnishing, or preprinting is effected by direct letterpress.

53. (currently amended) The process of claim ~~[[51]]~~ 33, wherein the precoating, prevarnishing, or preprinting is effected by a letterpress plate, acting indirectly by way of a blanket cylinder.

54. (currently amended) The process of claim ~~[[51]]~~ 33, wherein the precoating, prevarnishing, or preprinting is effected by a printing unit in an offset press.

55. (previously amended) The process of claim 33, wherein said step of applying further comprises the steps of printing two lines with different length next to each other over a certain portion of their length, and connecting the two lines to each other at ends of a shorter line of the two lines to produce a capacitive element.

56. (previously amended) The process of claim 33, wherein said step of applying further comprises the steps of printing a base line, printing an insulator over part of the base line, and printing an opposing line to produce a capacitive element .

57. (previously amended) The process of claim 44, wherein the substrate is a fibrous material.

58. (previously amended) The process of claim 44, wherein the substrate is a film.

59. (previously amended) The process of claim 44, wherein the substrate is a fabric of at least one of natural and synthetic fibers.

60. (canceled)

61. (currently amended) The process of claim ~~[[60]]~~ 44, wherein the precoating, prevarnishing, or preprinting is effected by direct letterpress.

62. (currently amended) The process of claim ~~[[60]]~~ 44, wherein the precoating, prevarnishing, or preprinting is effected by a letterpress plate, acting indirectly by way of a blanket cylinder.

63. (currently amended) The process of claim ~~[[60]]~~ 44, wherein the precoating, prevarnishing, or preprinting is effected by a printing unit in an offset press.

64. (previously presented) The process of claim 44, wherein said step of applying further comprises the steps of printing two lines with different length next to each other over a certain portion of their length, and connecting the two lines to each other at ends of a shorter line of the two lines to produce a capacitive element.

65. (previously presented) The process of claim 44, wherein said step of applying further comprises the steps of printing a base line, printing an insulator over part of the base line, and printing an opposing line to produce a capacitive element.

66. (previously presented) The process of claim 33, further comprising the steps of forming a recess in the substrate, and placing a further part of the oscillating circuit or an integrated circuit (IC) chip in the recess such that the further part of the oscillating circuit or the IC chip is mounted therein and connected to the part of the at least one of the antenna and the oscillating circuit, thereby producing a conductive connection between the further part of the oscillating circuit or the IC chip and the antenna.

67. (previously presented) The process of claim 66, wherein the recess is formed sufficiently deep so that an upper surface of the further part of the oscillating circuit or the IC chip arranged parallel to an upper surface of the substrate is at least flush with the upper surface of the substrate after it has been placed in the recess.

68. (previously presented) The process of claim 66, wherein the recess is formed sufficiently deep so that an upper surface of the further part of the oscillating circuit or the IC chip arranged parallel to an upper surface of the antenna is at least flush with the upper surface of the antenna after it has been placed in the recess.

69. (previously presented) The process of claim 66, wherein said step of forming the recess includes stamping, impressing, or grooving the substrate.

70. (previously presented) The process of claims 66, wherein said step of forming the recess includes stamping, impressing, or grooving the substrate in one or more operating units within a printing press which is used for said step of applying.

71. (previously presented) The process of claim 66, wherein the substrate is a sheet and said step of forming the recess includes stamping, impressing, or grooving the substrate in a stamping press that produces one or more packaging cutouts from the substrate on which at least antennas and parts of oscillating circuits have been printed.

72. (previously presented) The process of claim 44, further comprising the steps of forming a recess in the substrate, and placing a further part of the oscillating circuit or an integrated circuit (IC) chip in the recess such that the further part of the oscillating circuit or the IC chip is mounted therein and connected to the part of the at least one of the antenna and the oscillating circuit, thereby producing a conductive connection between the further part of the oscillating circuit or the IC chip and the antenna.

73. (previously presented) The process of claim 72, wherein the recess is formed sufficiently deep so that an upper surface of the further part of the oscillating circuit or the IC chip arranged parallel to an upper surface of the substrate is at least flush with the upper surface of the substrate after it has been placed in the recess.

74. (previously presented) The process of claim 72, wherein the recess is formed sufficiently deep so that an upper surface of the further part of the oscillating circuit or the IC chip arranged parallel to an upper surface of the antenna is at least flush with the upper surface of the antenna after it has been placed in the recess.

75. (previously presented) The process of claim 72, wherein said step of forming the recess includes stamping, impressing, or grooving the substrate.

76. (previously presented) The process of claims 72, wherein said step of forming the recess includes stamping, impressing, or grooving the substrate in one or more operating units within a printing press which is for said step of applying.

77. (previously presented) The process of claim 72, wherein the substrate is a sheet and said step of forming the recess includes stamping, impressing, or grooving the substrate in a stamping press that produces one or more packaging cutouts from the substrate on which at least antennas and parts of oscillating circuits have been printed.

78. (currently amended) The process of claim 33, wherein said step of applying includes applying at least one of ~~an~~ the antenna or part of ~~an~~ the oscillating circuit to the substrate, applying one of the oscillating circuit, a further part of the oscillating circuit, or an integrated circuit (IC) chip to the substrate together with the antenna or the part of the oscillating circuit, producing a conductive connection between the oscillating circuit or IC chip and the antenna, and sinking the oscillating circuit or IC chip and the antenna at least to a level of a surface of the substrate by deformation of the substrate.

79. (currently amended) The process of claim 44, wherein said step of applying includes applying ~~an~~ the antenna or part of ~~an~~ the oscillating circuit to the substrate, applying one of the oscillating circuit, a further part of the oscillating circuit,

or an integrated circuit (IC) chip to the substrate together with the antenna or the part of the oscillating circuit, producing a conductive connection between the oscillating circuit or IC chip and the antenna, and sinking the oscillating circuit or IC chip and the antenna at least to a level of a surface of the substrate by deformation of the substrate.

80. (previously presented) The process of claim 33, wherein the substrate is compressible.

81. (previously presented) The process of claim 44, wherein the substrate is compressible.